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DAYTON, Ohio, April 9, 1976 --- Dr. Faye Schwelitz, assistant professor of Biology at the University of Dayton, has received a $85,000 grant from the National Institutes of Health to study the role of 3',5'-Cyclic Adenosine Monophosphate (C-amp) in the one celled "euglena," an organism which shares characteristics of both plant and animal life and has the potential of revealing secrets of photosynthesis as well as animal metabolism.

The "euglena" can be grown in the dark where it develops a proplastid, a rudimentary form of a chloroplast which is a part of the structure of plant cells which makes them green and capable of using energy of the sun to produce food. Once the "euglena" is exposed to light it develops mature chloroplasts. It is this interval between rudimentary form and maturity which interests Dr. Schwelitz. Her research indicates that C-amp is implicated in the development of mature chloroplasts.

Coincindentally C-amp is important in human metabolism. High levels of C-amp aid in the differentiation of cells. Low levels of C-amp cause cell division. Scientists do not believe it is a coincidence that cancer cells have lower levels of C-amp than regular cells and as a consequence carry on rampant cell division.

"By understanding a simple system, we will be better able to understand complicated systems. Since the euglena has characteristics of both plant and animal it is the ideal system with which to work," says Dr. Schwelitz.

Although other scientists are interested in the role of C-amp in metabolism, Dr. Schwelitz is one of the few scientists know to be working with the "Euglena" in connection with C-amp.

The three-year grant will be budgeted to pay the salaries of undergraduate and graduate assistants and Dr. Schwelitz' salary during the summer term. Equipment purchases will include a Coulter Counter, to count euglena cells and a shaker bath with illumination to grow cells, at a total cost of $10,000 plus miscellaneous equipment. Expenses for radio isotopes, which cost several hundred dollars for a few weeks supply, also were counted in the budget.

Dr. Schwelitz' grant is one of the largest from the National Institutes of Health which the biology department has received.

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